SUBCHAPTER O—COAL MINE SAFETY AND HEALTH

PART 70—MANDATORY HEALTH STANDARDS—UNDERGROUND COAL MINES

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70.1900 Exhaust Gas Monitoring

AUTHORITY: 30 U.S.C. 811, 813(h), 957.

SOURCE: 59 FR 8327, Feb 18, 1994, unless otherwise noted.

Subpart A—General

AUTHORITY: 30 U.S.C. 811 and 813(h).

SOURCE: 45 FR 24000, Apr. 8, 1980, unless otherwise noted.

§ 70.1 Scope.

This part 70 sets forth mandatory health standards for each underground coal mine subject to the Federal Mine Safety and Health Act of 1977.

§ 70.2 Definitions.

For the purpose of this part 70, the term:

(a) *Act* means the Federal Mine Safety and Health Act of 1977, Pub. L. 91–173, as amended by Pub. L. 95–164.

(b) *Active workings* means any place in a coal mine where miners are normally required to work or travel.

(c) *Certified person* means an individual certified by the Secretary in accordance with §70.202 (Certified person; sampling) to take respirable dust samples required by this part or certified in accordance with §70.203 (Certified person; maintenance and calibration) to perform the maintenance and calibration of respirable dust sampling equipment as required by this part.

(d) *Concentration* means a measure of the amount of a substance contained per unit volume of air.

(e) *Designated area.* An area of a mine identified by the operator under §75.371(t) (Mine ventilation plan; contents) of this title and approved by the district manager.

(f) *Designated occupation* means the occupation on a mechanized mining unit that has been determined by results of respirable dust samples to have the greatest respirable dust concentration.

(g) *District Manager* means the manager of the Coal Mine Safety and Health District in which the mine is located.

(h) *Mechanized mining unit* means: (1) A unit of mining equipment including hand loading equipment used for the production of material; or (2) a specialized unit which utilizes mining equipment other than specified in §70.207(e) (Bimonthly sampling; mechanized mining units).

(i) *MRE instrument* means the gravimetric dust sampler with a four

channel horizontal elutriator developed by the Mining Research Establishment of the National Coal Board, London, England.

(j) *MSHA* means the Mine Safety and Health Administration of the Department of Labor.

(k) *Normal production shift* means (1) a production shift during which the amount of material produced in a mechanized mining unit is at least 50 percent of the average production reported for the last set of five valid samples; or (2) a production shift during which any amount of material is produced by a new mechanized mining unit, until a set of five valid samples is taken.

(l) *Production shift* means (1) with regard to a mechanized mining unit, a shift during which material is produced, or (2) with regard to a designated area of a mine, a shift during which material is produced and routine day-to-day activities are occurring in the designated area.

(m) *Quartz* means crystalline silicon dioxide (SiO_2) not chemically combined with other substances and having a distinctive physical structure.

(n) *Respirable dust* means dust collected with a sampling device approved by the Secretary and the Secretary of Health and Human Services in accordance with part 74 (Coal Mine Dust Personal Sampler Units) of this title. Sampling device approvals issued by the Secretary of the Interior and Secretary of Health, Education, and Welfare are continued in effect.

(o) *Secretary* means the Secretary of Labor or his delegate.

(p) *Valid respirable dust sample* means a respirable dust sample collected and submitted as required by this part, and not voided by MSHA.

[45 FR 24000, Apr. 8, 1980, as amended at 47 FR 28095, June 29, 1982; 57 FR 20913, May 15, 1992]

EFFECTIVE DATE NOTE: At 79 FR 24972, May 1, 2014, subpart A was revised, effective Aug. 1, 2014. For the convenience of the user, the revised text is set forth as follows:

Subpart A—General

§ 70.1 Scope.

This part 70 sets forth mandatory health standards for each underground coal mine subject to the Federal Mine Safety and Health Act of 1977, as amended.

§ 70.2 Definitions.

The following definitions apply in this part.

Act. The Federal Mine Safety and Health Act of 1977, Public Law 91–173, as amended by Public Law 95–164 and Public Law 109–236.

Active workings. Any place in a coal mine where miners are normally required to work or travel.

Approved sampling device. A sampling device approved by the Secretary and Secretary of Health and Human Services (HHS) under part 74 of this title.

Certified person. An individual certified by the Secretary in accordance with § 70.202 to take respirable dust samples required by this part or certified in accordance with § 70.203 to perform the maintenance and calibration of respirable dust sampling equipment as required by this part.

Coal mine dust personal sampler unit (CMDPSU). A personal sampling device approved under part 74, subpart B, of this title.

Concentration. A measure of the amount of a substance contained per unit volume of air.

Continuous personal dust monitor (CPDM). A personal sampling device approved under part 74, subpart C of this title.

Designated area (DA). A specific location in the mine identified by the operator in the mine ventilation plan under § 75.371(t) of this title where samples will be collected to measure respirable dust generation sources in the active workings; approved by the District Manager; and assigned a four-digit identification number by MSHA.

Designated occupation (DO). The occupation on a mechanized mining unit (MMU) that has been determined by results of respirable dust samples to have the greatest respirable dust concentration.

District Manager. The manager of the Coal Mine Safety and Health District in which the mine is located.

Equivalent concentration. The concentration of respirable coal mine dust, including quartz, expressed in milligrams per cubic meter of air (mg/m^3) as measured with an approved sampling device, determined by dividing the weight of dust in milligrams collected on the filter of an approved sampling device by the volume of air in cubic meters passing through the filter (sampling time in minutes (t) times the sampling airflow rate in cubic meters per minute), and then converting that concentration to an equivalent concentration as measured by the Mining Research Establishment (MRE) instrument. When the approved sampling device is:

(1) The CMDPSU, the equivalent concentration is determined by multiplying the concentration of respirable coal mine dust by the constant factor prescribed by the Secretary.

(2) The CPDM, the device shall be programmed to automatically report end-of-shift concentration measurements as equivalent concentrations.

Mechanized mining unit (MMU). A unit of mining equipment including hand loading equipment used for the production of material; or a specialized unit which uses mining equipment other than specified in §70.206(b) or in §70.208(b) of this part. Each MMU will be assigned a four-digit identification number by MSHA, which is retained by the MMU regardless of where the unit relocates within the mine. However, when:

(1) Two sets of mining equipment are used in a series of working places within the same working section and only one production crew is employed at any given time on either set of mining equipment, the two sets of equipment shall be identified as a single MMU.

(2) Two or more sets of mining equipment are simultaneously engaged in cutting, mining, or loading coal or rock from working places within the same working section, each set of mining equipment shall be identified as a separate MMU.

MRE instrument. The gravimetric dust sampler with a four channel horizontal elutriator developed by the Mining Research Establishment of the National Coal Board, London, England.

MSHA. The Mine Safety and Health Administration of the U.S. Department of Labor.

Normal production shift. A production shift during which the amount of material produced by an MMU is at least equal to 80 percent of the average production recorded by the operator for the most recent 30 production shifts or for all production shifts if fewer than 30 shifts of production data are available.

Other designated occupation (ODO). Other occupation on an MMU that is designated for sampling required by this part in addition to the DO. Each ODO shall be identified by a four-digit identification number assigned by MSHA.

Production shift. With regard to an MMU, a shift during which material is produced; with regard to a DA of a mine, a shift during which material is produced and routine day-to-day activities are occurring in the DA.

Quartz. Crystalline silicon dioxide (SiO_2) not chemically combined with other substances and having a distinctive physical structure.

Representative sample. A respirable dust sample, expressed as an equivalent concentration, that reflects typical dust concentration levels and with regard to an MMU, normal mining activities in the active workings during which the amount of material produced is equivalent to a normal production shift; or with regard to a DA, material is produced and routine-day-to-day activities are occurring.

Respirable dust. Dust collected with a sampling device approved by the Secretary and the Secretary of HHS in accordance with part 74 (Coal Mine Dust Sampling Devices) of this title.

Secretary. The Secretary of Labor or a delegate.

Valid respirable dust sample. A respirable dust sample collected and submitted as required by this part, including any sample for which the data were electronically transmitted to MSHA, and not voided by MSHA.

Subpart B—Dust Standards

AUTHORITY: Secs. 101 and 103(h), Federal Mine Safety and Health Act of 1977, Pub. L. 91–173 as amended by Pub. L. 95–164, 91 Stat. 1291 and 1299 (30 U.S.C. 811 and 813(h)).

SOURCE: 45 FR 24001, Apr. 8, 1980, unless otherwise noted.

§ 70.100 Respirable dust standards.

(a) Each operator shall continuously maintain the average concentration of respirable dust in the mine atmosphere during each shift to which each miner in the active workings of each mine is exposed at or below 2.0 milligrams of respirable dust per cubic meter of air as measured with an approved sampling device and in terms of an equivalent concentration determined in accordance with §70.206 (Approved sampling devices; equivalent concentrations).

(b) Each operator shall continuously maintain the average concentration of respirable dust within 200 feet outby the working faces of each section in the intake airways at or below 1.0 milligrams of respirable dust per cubic meter of air as measured with an approved sampling device and in terms of an equivalent concentration determined in accordance with §70.206 (Approved sampling devices; equivalent concentrations).

§ 70.101 Respirable dust standard when quartz is present.

When the respirable dust in the mine atmosphere of the active workings contains more than 5 percent quartz, the operator shall continuously maintain the average concentration of respirable dust in the mine atmosphere during each shift to which each miner in the

active workings is exposed at or below a concentration of respirable dust, expressed in milligrams per cubic meter of air as measured with an approved sampling device and in terms of an equivalent concentration determined in accordance with §70.206 (Approved sampling devices; equivalent concentrations), computed by dividing the percent of quartz into the number 10.

Example: The respirable dust associated with a mechanized mining unit or a designated area in a mine contains quartz in the amount of 20%. Therefore, the average concentration of respirable dust in the mine atmosphere associated with that mechanized mining unit or designated area shall be continuously maintained at or below 0.5 milligrams of respirable dust per cubic meter of air (10/20=0.5 mg/m^3).

EFFECTIVE DATE NOTE: At 79 FR 24973, May 1, 2014, subpart B was revised, effective Aug. 1, 2014. For the convenience of the user, the revised text is set forth as follows:

Subpart B—Dust Standards

§70.100 Respirable dust standards.

(a) Each operator shall continuously maintain the average concentration of respirable dust in the mine atmosphere during each shift to which each miner in the active workings of each mine is exposed, as measured with an approved sampling device and expressed in terms of an equivalent concentration, at or below:

(1) 2.0 milligrams of respirable dust per cubic meter of air (mg/m^3).

(2) 1.5 mg/m^3 as of August 1, 2016.

(b) Each operator shall continuously maintain the average concentration of respirable dust within 200 feet outby the working faces of each section in the intake airways as measured with an approved sampling device and expressed in terms of an equivalent concentration at or below:

(1) 1.0 mg/m^3.

(2) 0.5 mg/m^3 as of August 1, 2016.

§70.101 Respirable dust standard when quartz is present.

(a) Each operator shall continuously maintain the average concentration of respirable quartz dust in the mine atmosphere during each shift to which each miner in the active workings of each mine is exposed at or below 0.1 mg/m^3 (100 micrograms per cubic meter or μg/m^3) as measured with an approved sampling device and expressed in terms of an equivalent concentration.

(b) When the equivalent concentration of respirable quartz dust exceeds 100 μg/m^3, the operator shall continuously maintain the average concentration of respirable dust in the mine atmosphere during each shift to which each miner in the active workings is exposed as measured with an approved sampling device and expressed in terms of an equivalent concentration at or below the applicable dust standard. The applicable dust standard is computed by dividing the percent of quartz into the number 10. The application of this formula shall not result in an applicable dust standard that exceeds the standard established by §70.100(a).

Example: Assume the sampled MMU or DA is on a 1.5-mg/m^3 dust standard. Suppose a valid representative dust sample with an equivalent concentration of 1.12 mg/m^3 contains 12.3% of quartz dust, which corresponds to a quartz concentration of 138 μg/m^3. Therefore, the average concentration of respirable dust in the mine atmosphere associated with that MMU or DA shall be maintained on each shift at or below 0.8 mg/m^3 (10/12.3% = 0.8 mg/m^3).

Subpart C—Sampling Procedures

AUTHORITY: 30 U.S.C. 811, 813(h), and 957.

SOURCE: 58 FR 63528, Dec. 2, 1993, unless otherwise noted.

§70.201 Sampling; general requirements.

(a) Each operator shall take respirable dust samples of the concentration of respirable dust in the active workings of the mine as required by this part with a sampling device approved by the Secretary and the Secretary of Health and Human Services under part 74 (Coal Mine Dust Personal Sampler Units) of this title.

(b) Sampling devices shall be worn or carried directly to and from the mechanized mining unit or designated area to be sampled and shall be operated portal to portal. Sampling devices shall remain operational during the entire shift or for 8 hours, whichever time is less.

(c) Upon request from the District Manager, the operator shall submit the date on which collecting any respirable dust samples required by this part will begin.

(d) During the time for abatement fixed in a citation for violation of §70.100 (Respirable dust standards) or §70.101 (Respirable dust standard when quartz is present), the operator shall take corrective action to lower the concentration of respirable dust to within the permissible concentration and then sample each production shift

until five valid respirable dust samples are taken.

[45 FR 24000, Apr. 8, 1980, as amended at 47 FR 28095, June 29, 1982]

§ 70.202 Certified person; sampling.

(a) The respirable dust sampling required by this part shall be done by a certified person.

(b) To be certified, a person shall pass the MSHA examination on sampling of respirable coal mine dust.

(c) A person may be temporarily certified by MSHA to take respirable dust samples if the person receives instruction from an authorized representative of the Secretary in the methods of collecting and submitting samples under this rule. The temporary certification shall be withdrawn if the person does not successfully complete the examination conducted by MSHA on sampling of respirable coal mine dust within six months from the issue date of the temporary certification.

§ 70.203 Certified person; maintenance and calibration.

(a) Approved sampling devices shall be maintained and calibrated by a certified person.

(b) To be certified, a person shall pass the MSHA examination on maintenance and calibration procedures for respirable dust sampling equipment.

(c) A person may be temporarily certified by MSHA to maintain and calibrate approved sampling devices if the person receives instruction from an authorized representative of the Secretary in the maintenance and calibration procedures for respirable dust sampling equipment under this rule. The temporary certification shall be withdrawn if the person does not successfully complete the examination conducted by MSHA on maintenance and calibration procedures within six months from the issue date of the temporary certification.

§ 70.204 Approved sampling devices; maintenance and calibration.

(a) Approved sampling devices shall be maintained as approved under part 74 (Coal Mine Dust Personal Sampler Units) of this chapter and calibrated in accordance with MSHA Informational Report IR 1240 (1996) ''Calibration and Maintenance Procedures for Coal Mine Respirable Dust Samplers (supersedes IR 1121)'' by a person certified in accordance with § 70.203 (Certified person; maintenance and calibration).

(b) Approved sampling devices shall be calibrated at the flowrate of 2.0 liters of air per minute, or at a different flowrate as prescribed by the Secretary and the Secretary of Health and Human Services for the particular device, before they are put into service and at intervals not to exceed 200 hours of operating time thereafter.

(c) A calibration mark shall be placed on the flowmeter of each approved sampling device to indicate the proper position of the float when the sampler is operating at a flowrate of 2.0 liters of air per minute or other flowrate prescribed by the Secretary and the Secretary of Health and Human Services for the particular device. The standard to denote proper flow is when the lowest part of the float is tangent to the top of the calibration mark.

(d) Approved sampling devices shall be tested and examined immediately before each sampling shift and necessary external maintenance shall be performed to assure that the sampling devices are clean and in proper working condition by a person certified in accordance with § 70.202 (Certified person; sampling) or § 70.203 (Certified person; maintenance and calibration). This testing and examination shall include the following:

(1) Testing the voltage of each battery while under actual load to assure the battery is fully charged. The voltage for nickel cadmium cell batteries shall not be lower than the product of the number of cells in the battery pack multiplied by 1.25. The voltage for other than nickel cadmium cell batteries shall not be lower than the product of the number of cells in the battery pack multiplied by the manufacturer's nominal voltage per cell value;

(2) Examination of all components of the cyclone to assure that they are clean and free of dust and dirt;

(3) Examination of the inner surface of the cyclone on the approved sampling device to assure that it is free of scoring;

(4) Examination of the external tubing on the approved sampling device to assure that it is clean and free of leaks, and;

(5) Examination of the clamping and positioning of the cyclone body, vortex finder and cassette to assure that they are rigid, in alignment, and firmly in contact.

(e) MSHA Informational Report IR 1240 (1996) referenced in paragraph (a) of this section is incorporated-by-reference. This incorporation-by-reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected or obtained at MSHA, Coal Mine Safety and Health, 1100 Wilson Blvd., Room 2424, Arlington, Virginia 22209–3939 and at each MSHA Coal Mine Safety and Health district office. Copies may be inspected at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

[45 FR 24000, Apr. 8, 1980, as amended at 47 FR 28095, June 29, 1982; 64 FR 43285, Aug. 10, 1999; 67 FR 38385, June 4, 2002; 71 FR 16667, Apr. 3, 2006]

§ 70.205 Approved sampling devices; operation; air flowrate.

(a) Sampling devices approved in accordance with part 74 (Coal Mine Dust Personal Sampler Units) of this title shall be operated at the flowrate of 2.0 liters of air per minute, or at a different flowrate as prescribed by the Secretary and the Secretary of Health and Human Services for the particular device.

(b) Except as provided in paragraph (d) of this section, each approved sampling device shall be examined each shift by a person certified in accordance with §70.202 (Certified person; sampling) during the second hour after being put into operation to assure that the sampling device is operating properly and at the proper flowrate. If the proper flowrate is not maintained, necessary adjustments shall be made by the certified person.

(c) Each sampling device shall be examined each shift by a person certified in accordance with §70.202 (Certified person; sampling) during the last hour of operation to assure that the sampling device is operating properly and at the proper flowrate. If the proper flowrate is not maintained, the respirable dust sample shall be transmitted to MSHA with a notation by the certified person on the dust data card stating that the proper flowrate was not maintained.

(d) Paragraph (b) of this section shall not apply if the approved sampling device is being operated in a breast or chamber of an anthracite coal mine where the full box mining method is used.

[45 FR 24000, Apr. 8, 1980, as amended at 47 FR 28095, June 29, 1982]

§ 70.206 Approved sampling devices; equivalent concentrations.

The concentration of respirable dust shall be determined by dividing the weight of dust in milligrams collected on the filter of an approved sampling device by the volume of air in cubic meters passing through the filter and then converting that concentration to an equivalent concentration as measured with an MRE instrument. To convert a concentration of respirable dust as measured with an approved sampling device to an equivalent concentration of respirable dust as measured with an MRE instrument, the concentration of respirable dust measured with the approved sampling device shall be multiplied by the constant factor prescribed by the Secretary for the approved sampling device used, and the product shall be the equivalent concentration as measured with an MRE instrument.

§ 70.207 Bimonthly sampling; mechanized mining units.

(a) Each operator shall take five valid respirable dust samples from the designated occupation in each mechanized mining unit during each bimonthly period beginning with the bimonthly period of November 1, 1980. Designated occupation samples shall be collected on consecutive normal production shifts or normal production shifts each of which is worked on consecutive days. The bimonthly periods are:

January 1–February 28 (29)
March 1–April 30
May 1–June 30
July 1–August 31
September 1–October 31
November 1–December 31.

(b) When the respirable dust standard is changed in accordance with §70.101 (Respirable dust standard when quartz is present), respirable dust sampling of mechanized mining units shall begin on the first production shift during the next bimonthly period following notification of such change from MSHA.

(c) Upon issuance of a citation for a violation of §70.100(a) (Respirable dust standards) or §70.101 (Respirable dust standard when quartz is present) involving a designated occupation in a mechanized mining unit, paragraphs (a) and (b) of this section shall not apply to that unit until the violation is abated in accordance with §70.201(d) (Sampling; general requirements).

(d) Each designated occupation sample shall be taken on a normal production shift. If a normal production shift is not achieved, the sample for that shift may be voided by MSHA. However, any sample, regardless of production, with a respirable dust concentration greater than 2.5 milligrams per cubic meter of air will be used to determine the average concentration for that mechanized mining unit.

(e) Unless otherwise directed by the District Manager, the designated occupation samples shall be taken by placing the sampling device as follows:

(1) *Conventional section using cutting machine.* On the cutting machine operator or on the cutting machine within 36 inches inby the normal working position;

(2) *Conventional section shooting off the solid.* On the loading machine operator or on the loading machine within 36 inches inby the normal working position;

(3) *Continuous mining section other than auger-type.* On the continuous mining machine operator or on the continuous mining machine within 36 inches inby the normal working position;

(4) *Continuous mining machine; auger-type.* On the jacksetter who works nearest the working face on the return air side of the continuous mining machine or at a location that represents the maximum concentration of dust to which the miner is exposed;

(5) *Scoop section using cutting machine.* On the cutting machine operator or on the cutting machine within 36 inches inby the normal working position;

(6) *Scoop section, shooting off the solid.* On the coal drill operator or on the coal drill within 36 inches inby the normal working position;

(7) *Longwall section.* On the miner who works nearest the return air side of the longwall working face or along the working face on the return side within 48 inches of the corner;

(8) *Hand loading section with a cutting machine.* On the cutting machine operator or on the cutting machine within 36 inches inby the normal working position;

(9) *Hand loading section shooting off the solid.* On the hand loader exposed to the greatest dust concentration or at a location that represents the maximum concentration of dust to which the miner is exposed;

(10) *Anthracite mine sections.* On the hand loader exposed to the greatest dust concentration or at a location that represents the maximum concentration of dust to which the miner is exposed.

(f)(1) Each mechanized mining unit will be assigned a four digit identification number by MSHA. The mechanized mining unit shall retain that identification number regardless of where the unit relocates within the mine.

(2) When two sets of mining equipment are provided in a series of working places and only one production crew is employed at any given time on either set of mining equipment, the two sets of equipment shall be identified as a single mechanized mining unit. When two or more mechanized mining units are simultaneously engaged in the production of material within the same working section, each such mechanized mining unit shall be identified separately.

§70.208 Bimonthly sampling; designated areas.

(a) Each operator shall take one valid respirable dust sample from each designated area on a production shift during each bimonthly period beginning

with the bimonthly period of December 1, 1980. The bimonthly periods are:

February 1–March 31
April 1–May 31
June 1–July 31
August 1–September 30
October 1–November 30
December 1–January 31.

(b) When the respirable dust standard is changed in accordance with § 70.101 (Respirable dust standard when quartz is present), respirable dust sampling of designated areas shall begin on the first production shift during the next bimonthly period following notification of such change from MSHA.

(c) Upon notification from MSHA that any respirable dust sample taken from a designated area to meet the requirements of paragraph (a) or (b) of this section exceeds the applicable standard in § 70.100 (Respirable dust standards) or § 70.101 (Respirable dust standard when quartz is present), the operator shall take five valid respirable dust samples from that designated area within 15 calendar days. The operator shall begin such sampling on the first day on which there is a production shift following the day of receipt of notification.

(d) Upon issuance of a citation for a violation of § 70.100 (Respirable dust standards) or § 70.101 (Respirable dust standard when quartz is present) involving a designated area, paragraphs (a), (b) and (c) of this section shall not apply to that designated area until the violation is abated in accordance with § 70.201(d) (Sampling; general requirements).

(e) Designated area samples shall be collected at locations to measure respirable dust generation sources in the active workings. The approved mine ventilation plan contents required by § 75.371(t) of this chapter shall show the specific locations where designated area samples will be collected. Each designated area will be assigned a four-digit identification number by MSHA.

(f) MSHA approval of the operator's ventilation system and methane and dust control plan may be revoked based on samples taken by MSHA or in accordance with this part 70.

[45 FR 24000, Apr. 8, 1980, as amended at 57 FR 20913, May 15, 1992]

§ 70.209 Respirable dust samples; transmission by operator.

(a) The operator shall transmit within 24 hours after the end of the sampling shift all samples collected to fulfill the requirements of this part in containers provided by the manufacturer of the filter cassette to: Respirable Dust Processing Laboratory, Pittsburgh Safety and Health Technology Center, Cochran Mill Road, Building 38, P.O. Box 18179, Pittsburgh, Pennsylvania 15236–0179, or to any other address designated by the District Manager.

(b) The operator shall not open or tamper with the seal of any filter cassette or alter the weight of any filter cassette before or after it is used to fulfill the requirements of this part.

(c) A person certified in accordance with § 70.202 (Certified person; sampling) shall properly complete the dust data card that is provided by the manufacturer for each filter cassette. The card shall have an identification number identical to that on the cassette used to take the sample and be submitted to MSHA with the sample. Each card shall be signed by the certified person and shall include that person's certification number. Respirable dust samples with data cards not properly completed will be voided by MSHA.

(d) All respirable dust samples collected by the operator shall be considered taken to fulfill the sampling requirements of part 70, 71 or 90 of this title, unless the sample has been identified in writing by the operator to the District Manager, prior to the intended sampling shift, as a sample to be used for purposes other than required by part 70, 71 or 90 of this title.

(e) Respirable dust samples received by MSHA in excess of those required by this part shall be considered invalid samples.

(Pub. L. No. 96–511, 94 Stat. 2812 (44 U.S.C. 3501 *et seq.*))

[45 FR 24006, Apr. 8, 1981, as amended at 47 FR 14696, Apr. 6, 1982; 58 FR 63528, Dec. 2, 1993; 60 FR 33723, June 29, 1995; 60 FR 35695, July 11, 1995]

§ 70.210 Respirable dust samples; report to operator; posting.

(a) The Secretary shall provide the operator with a report of the following

data on respirable dust samples as soon as practicable:

(1) The mine identification number;

(2) The mechanized mining unit or designated area within the mine from which the samples were taken;

(3) The concentration of respirable dust, expressed in milligrams per cubic meter of air, for each valid sample;

(4) The average concentration of respirable dust, expressed in milligrams per cubic meter of air, for all valid samples;

(5) The occupation code, where applicable, and;

(6) The reason for voiding any samples.

(b) Upon receipt, the operator shall post this data for at least 31 days on the mine bulletin board.

§ 70.220 Status change reports.

(a) If there is a change in operational status that affects the respirable dust sampling requirements of this part, the operator shall report the change in operational status of the mine, mechanized mining unit, or designated area to the MSHA District Office or to any other MSHA office designated by the District Manager. Status changes shall be reported in writing within 3 working days after the status change has occurred.

(b) Each specific operational status is defined as follows: (1) Underground mine: (i) *Producing*—has at least one mechanized mining unit producing material.

(ii) *Nonproducing*—no material is being produced.

(iii) *Abandoned*—the work of all miners has been terminated and production activity has ceased.

(2) Mechanized mining unit:

(i) *Producing*—producing material from a working section.

(ii) *Nonproducing*—temporarily ceased production of material.

(iii) *Abandoned*—permanently ceased production of material.

(3) Designated Area:

(i) *Producing*—activity is occurring.

(ii) *Nonproducing*—activity has ceased.

(iii) *Abandoned*—the dust generating source has been withdrawn and activity has ceased.

EFFECTIVE DATE NOTE: At 79 FR 24974, May 1, 2014, Subpart C was revised, effective Aug. 1, 2014. For the convenience of the user, the revised text is set forth as follows:

Subpart C—Sampling Procedures

§ 70.201 Sampling; general and technical requirements.

(a) Only an approved coal mine dust personal sampler unit (CMDPSU) shall be used to take bimonthly samples of the concentration of respirable coal mine dust from the designated occupation (DO) in each MMU as required by this part until Janaury 31, 2016. On February 1, 2016, DOs in each MMU shall be sampled quarterly with an approved CPDM as required by this part and an approved CMDPSU shall not be used, unless notified by the Secretary to continue to use an approved CMDPSU to conduct quarterly sampling.

(b) Only an approved CMDPSU shall be used to take bimonthly samples of the concentration of respirable coal mine dust from each designated area (DA) as required by this part until January 31, 2016. On February 1, 2016:

(1) DAs associated with an MMU shall be redesignated as Other Designated Occupations (ODO). ODOs shall be sampled quarterly with an approved CPDM as required by this part and an approved CMDPSU shall not be used, unless notified by the Secretary to continue to use an approved CMDPSU to conduct quarterly sampling.

(2) DAs identified by the operator under §75.371(t) of this chapter shall be sampled quarterly with an approved CMDPSU as required by this part, unless the operator notifies the District Manager in writing that only an approved CPDM will be used for all DA sampling at the mine. The notification must be received at least 90 days before the beginning of the quarter in which CPDMs will be used to collect the DA samples.

(c) Sampling devices shall be worn or carried directly to the MMU or DA to be sampled and from the MMU or DA sampled and shall be operated portal-to-portal. Sampling devices shall remain with the occupation or DA being sampled and shall be operational during the entire shift, which includes the total time spent in the MMU or DA and while traveling to and from the mining section or area being sampled. If the work shift to be sampled is longer than 12 hours and the sampling device is:

(1) A CMDPSU, the operator shall switch-out the unit's sampling pump prior to the 13th-hour of operation.

(2) A CPDM, the operator shall switch-out the CPDM with a fully charged device prior to the 13th-hour of operation.

(d) If using a CMDPSU, one control filter shall be used for each shift of sampling. Each control filter shall:

(1) Have the same pre-weight date (noted on the dust data card) as the filters used for sampling;

(2) Remain plugged at all times;

(3) Be used for the same amount of time, and exposed to the same temperature and handling conditions as the filters used for sampling;

(4) Be kept with the exposed samples after sampling and in the same mailing container when transmitted to MSHA.

(e) Records showing the length of each production shift for each MMU shall be made and retained for at least six months and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners, and submitted to the District Manager when requested in writing.

(f) Upon request from the District Manager, the operator shall submit the date and time any respirable dust sampling required by this part will begin. This information shall be submitted at least 48 hours prior to the scheduled sampling.

(g) To establish a normal production shift, the operator shall record the amount of run-of-mine material produced by each MMU during each shift to determine the average production for the most recent 30 production shifts, or for all production shifts if fewer than 30 shifts of production data are available. Production records shall be retained for at least six months and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

(h) Operators using CPDMs shall provide training to all miners expected to wear a CPDM. The training shall be completed prior to a miner wearing a CPDM and then every 12 months thereafter. The training shall include:

(1) The importance of monitoring dust concentrations and properly wearing the CPDM.

(2) Explaining the basic features and capabilities of the CPDM;

(3) Discussing the various types of information displayed by the CPDM and how to access that information; and

(4) How to start and stop a short-term sample run during compliance sampling.

(i) An operator shall keep a record of the CPDM training at the mine site for 24 months after completion of the training. An operator may keep the record elsewhere if the record is immediately accessible from the mine site by electronic transmission. Upon request from an authorized representative of the Secretary, Secretary of HHS, or representative of miners, the operator shall promptly provide access to any such training records. The record shall include:

(1) The date of training;

(2) The names of miners trained; and

(3) The subjects included in the training.

(j) An anthracite mine using the full box, open breast, or slant breast mining method may use either a CPDM or a CMDPSU to conduct the required sampling. The mine operator shall notify the District Manager in writing of its decision to not use a CPDM.

(k) MSHA approval of the dust control portion of the operator's mine ventilation plan may be revoked based on samples taken by MSHA or in accordance with this part 70.

§ 70.202 Certified person; sampling.

(a) The respirable dust sampling required by this part shall be performed by a certified person.

(b) To be certified, a person shall complete the applicable MSHA course of instruction and pass the MSHA examination demonstrating competency in sampling procedures. Persons not certified in sampling, and those certified only in maintenance and calibration procedures in accordance with §70.203(b), are not permitted to collect respirable dust samples required by this part or handle approved sampling devices when being used in sampling.

(c) To maintain certification, a person must pass the MSHA examination demonstrating competency in sampling procedures every three years.

(d) MSHA may revoke a person's certification for failing to properly carry out the required sampling procedures.

§ 70.203 Certified person; maintenance and calibration.

(a) Approved sampling devices shall be maintained and calibrated by a certified person.

(b) To be certified, a person shall complete the applicable MSHA course of instruction and pass the MSHA examination demonstrating competency in maintenance and calibration procedures for approved sampling devices. Necessary maintenance of the sampling head assembly of a CMDPSU, or the cyclone assembly of a CPDM, can be performed by persons certified in sampling or in maintenance and calibration.

(c) To maintain certification, a person must pass the MSHA examination demonstrating competency in maintenance and calibration procedures every three years.

(d) MSHA may revoke a person's certification for failing to properly carry out the required maintenance and calibration procedures.

§ 70.204 Approved sampling devices; maintenance and calibration.

(a) Approved sampling devices shall be maintained as approved under part 74 of this title and calibrated in accordance with MSHA Informational Report IR 1240 (1996) ''Calibration and Maintenance Procedures for Coal Mine Respirable Dust Samplers'' or

in accordance with the manufacturer's recommendations, if using a CPDM. Only persons certified in maintenance and calibration can perform maintenance work on the CPDM or the pump unit of the CMDPSU.

(b) Sampling devices shall be calibrated at the flowrate of 2.0 liters of air per minute (L/min) if using a CMDPSU; at 2.2 L/min if using a CPDM; or at a different flowrate recommended by the manufacturer, before they are put into service and, thereafter, at time intervals recommended by the manufacturer or prescribed by the Secretary or Secretary of HHS.

(c) If using a CMDPSU, each sampling device shall be examined and tested by a person certified in sampling or in maintenance and calibration within 3 hours before the start of the shift on which the approved sampling devices will be used to collect respirable dust samples. This is to assure that the sampling devices are clean and in proper working condition. This examination and testing shall include the following:

(1) Examination of all components of the cyclone assembly to assure that they are clean and free of dust and dirt. This includes examining the interior of the connector barrel (located between the cassette assembly and vortex finder), vortex finder, cyclone body, and grit pot;

(2) Examination of the inner surface of the cyclone body to assure that it is free of scoring or scratch marks on the inner surface of the cyclone where the air flow is directed by the vortex finder into the cyclone body;

(3) Examination of the external hose connecting the pump unit to the sampling head assembly to assure that it is clean and free of leaks; and

(4) Examination of the clamping and positioning of the cyclone body, vortex finder, and cassette to assure that they are rigid, in alignment, firmly in contact, and airtight.

(5) Testing the voltage of each battery while under actual load to assure the battery is fully charged. This requires that a fully assembled and examined sampling head assembly be attached to the pump inlet with the pump unit running when the voltage check is made. The voltage for the batteries used in the CMDPSU shall not be lower than the product of the number of cells in the battery multiplied by the manufacturer's nominal voltage per cell value.

(d) If using a CPDM, the certified person in sampling or in maintenance and calibration shall:

(1) Follow the pre-operational examinations, testing, and set-up procedures, and perform necessary external maintenance recommended by the manufacturer to assure the operational readiness of each CPDM within 3 hours before the start of the shift on which the sampling devices will be used to collect respirable dust samples; and

(2) Perform other required scheduled examinations and maintenance procedures recommended by the manufacturer.

(e) You must proceed in accordance with ''Calibration and Maintenance Procedures for Coal Mine Respirable Dust Samplers,'' MSHA Informational Report IR 1240 (1996) referenced in paragraph (a) of this section. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy from the MSHA Web site at *http://www.msha.gov* and you may inspect or obtain a copy at MSHA, Coal Mine Safety and Health, 1100 Wilson Blvd., Room 2424, Arlington, Virginia 22209–3939 and at each MSHA Coal Mine Safety and Health District Office, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal__register/code__of__federal__regulations/ibr__locations.html*.

§ 70.205 Approved sampling devices; operation; air flowrate.

(a) Approved sampling devices shall be operated at the flowrate of 2.0 L/min if using a CMDPSU; at 2.2 L/min if using a CPDM; or at a different flowrate recommended by the manufacturer.

(b) If using a CMDPSU, each approved sampling device shall be examined each shift by a person certified in sampling during:

(1) The second hour after being put into operation to assure it is in the proper location, operating properly, and at the proper flowrate. If the proper flowrate is not maintained, necessary adjustments shall be made by the certified person. This examination is not required if the sampling device is being operated in an anthracite coal mine using the full box, open breast, or slant breast mining method.

(2) The last hour of operation to assure that the sampling device is operating properly and at the proper flowrate. If the proper flowrate is not maintained, the respirable dust sample shall be transmitted to MSHA with a notation by the certified person on the back of the dust data card stating that the proper flowrate was not maintained. Other events occurring during the collection of respirable dust samples that may affect the validity of the sample, such as dropping of the sampling head assembly onto the mine floor, shall be noted on the back of the dust data card.

(c) If using a CPDM, the person certified in sampling shall monitor the dust concentrations and the sampling status conditions being reported by the sampling device at mid-shift or more frequently as specified in the approved mine ventilation plan to assure: The sampling device is in the proper location and operating properly; and the work

environment of the occupation or DA being sampled remains in compliance with the applicable standard at the end of the shift. This monitoring is not required if the sampling device is being operated in an anthracite coal mine using the full box, open breast, or slant breast mining method.

§ 70.206 Bimonthly sampling; mechanized mining units.

Until January 31, 2016:

(a) Each operator shall take five valid representative samples from the designated occupation (DO) in each mechanized mining unit (MMU) during each bimonthly period. DO samples shall be collected on consecutive normal production shifts or normal production shifts each of which is worked on consecutive days. The bimonthly periods are:

January 1–February 28 (29)
March 1–April 30
May 1–June 30
July 1–August 31
September 1–October 31
November 1–December 31

(b) Unless otherwise directed by the District Manager, the DO samples shall be taken by placing the approved sampling device as specified in paragraphs (b)(1) through (b)(10) of this section.

(1) *Conventional section using cutting machine.* On the cutting machine operator or on the cutting machine within 36 inches inby the normal working position;

(2) *Conventional section blasting off the solid.* On the loading machine operator or on the loading machine within 36 inches inby the normal working position;

(3) *Continuous mining section other than auger-type.* On the continuous mining machine operator or on the continuous mining machine within 36 inches inby the normal working position;

(4) *Continuous mining machine; auger-type.* On the jacksetter who works nearest the working face on the return air side of the continuous mining machine or at a location that represents the maximum concentration of dust to which the miner is exposed;

(5) *Scoop section using cutting machine.* On the cutting machine operator or on the cutting machine within 36 inches inby the normal working position;

(6) *Scoop section, blasting off the solid.* On the coal drill operator or on the coal drill within 36 inches inby the normal working position;

(7) *Longwall section.* On the miner who works nearest the return air side of the longwall working face or along the working face on the return side within 48 inches of the corner;

(8) *Hand loading section with a cutting machine.* On the cutting machine operator or on the cutting machine within 36 inches inby the normal working position;

(9) *Hand loading section blasting off the solid.* On the hand loader exposed to the greatest dust concentration or at a location that represents the maximum concentration of dust to which the miner is exposed;

(10) *Anthracite mine sections.* On the hand loader exposed to the greatest dust concentration or at a location that represents the maximum concentration of dust to which the miner is exposed.

(c) When the respirable dust standard is changed in accordance with § 70.101, the new applicable standard shall become effective 7 calendar days after the date of the notification of the change by MSHA.

(d) If a normal production shift is not achieved, the DO sample for that shift may be voided by MSHA. However, any sample, regardless of production, that exceeds the applicable standard by at least 0.1 mg/m^3 shall be used in the determination of the equivalent concentration for that MMU.

(e) When a valid representative sample taken in accordance with this section meets or exceeds the excessive concentration value (ECV) in Table 70–1 that corresponds to the applicable standard and particular sampling device used, the operator shall:

(1) Make approved respiratory equipment available to affected miners in accordance with § 72.700 of this chapter;

(2) Immediately take corrective action to lower the concentration of respirable dust to at or below the applicable respirable dust standard; and

(3) Make a record of the corrective actions taken. The record shall be certified by the mine foreman or equivalent mine official, no later than the end of the mine foreman's or equivalent official's next regularly scheduled working shift. The record shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration. Such records shall be retained at a surface location at the mine for at least 1 year and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

(f) Noncompliance with the applicable standard is demonstrated during the sampling period when:

(1) Two or more valid representative samples meet or exceed the ECV in Table 70–1 that corresponds to the applicable standard and particular sampling device used; or

(2) The average for all valid representative samples meets or exceeds the ECV in Table 70–2 that corresponds to the applicable standard and particular sampling device used.

(g) Unless otherwise directed by the District Manager, upon issuance of a citation for a violation of the applicable standard involving a DO in an MMU, paragraph (a) of this section shall not apply to that MMU until the violation is abated and the citation

is terminated in accordance with paragraphs (h) and (i) of this section.

(h) Upon issuance of a citation for violation of the applicable standard, the operator shall take the following actions sequentially:

(1) Make approved respiratory equipment available to affected miners in accordance with §72.700 of this chapter;

(2) Immediately take corrective action to lower the concentration of respirable coal mine dust to at or below the applicable standard; and

(3) Make a record of the corrective actions taken. The record shall be certified by the mine foreman or equivalent mine official, no later than the end of the mine foreman's or equivalent official's next regularly scheduled working shift. The record shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration. Such records shall be retained at a surface location at the mine for at least 1 year and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

(4) Begin sampling, within 8 calendar days after the date the citation is issued, the environment of the affected occupation in the MMU on consecutive normal production shifts until five valid representative samples are taken.

(i) A citation for a violation of the applicable standard shall be terminated by MSHA when:

(1) Each of the five valid representative samples is at or below the applicable standard; and

(2) The operator has submitted to the District Manager revised dust control parameters as part of the mine ventilation plan applicable to the MMU in the citation, and the changes have been approved by the District Manager. The revised parameters shall reflect the control measures used by the operator to abate the violation.

§70.207 Bimonthly sampling; designated areas.

Until January 31, 2016:

(a) Each operator shall take one valid representative sample from each designated area (DA) on a production shift during each bimonthly period. The bimonthly periods are:

February 1–March 31
April 1–May 31
June 1–July 31
August 1–September 30
October 1–November 30
December 1–January 31.

(b) When the respirable dust standard is changed in accordance with §70.101, the new applicable standard shall become effective 7 calendar days after the date of the notification of the change by MSHA.

(c) Upon notification from MSHA that any valid sample taken from a DA to meet the requirements of paragraph (a) of this section exceeds the applicable standard, the operator shall take five valid representative samples from that DA within 15 calendar days. The operator shall begin such sampling on the first day on which there is a production shift following the day of receipt of notification.

(d) When a valid representative sample taken in accordance with this section meets or exceeds the ECV in Table 70–1 that corresponds to the applicable standard and particular sampling device used, the operator shall:

(1) Make approved respiratory equipment available to affected miners in accordance with §72.700 of this chapter;

(2) Immediately take corrective action to lower the concentration of respirable coal mine dust to at or below the applicable standard; and

(3) Make a record of the corrective actions taken. The record shall be certified by the mine foreman or equivalent mine official, no later than the end of the mine foreman's or equivalent official's next regularly scheduled working shift. The record shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration. Such records shall be retained at a surface location at the mine for at least 1 year and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

(e) Noncompliance with the applicable standard is demonstrated during the sampling period when:

(1) Two or more valid representative samples meet or exceed the ECV in Table 70–1 that corresponds to the applicable standard and the particular sampling device used; or

(2) The average for all valid representative samples meets or exceeds the ECV in Table 70–2 that corresponds to the applicable standard and the particular sampling device used.

(f) Unless otherwise directed by the District Manager, upon issuance of a citation for a violation of the applicable standard, paragraph (a) of this section shall not apply to that DA until the violation is abated and the citation is terminated in accordance with paragraphs (g) and (h) of this section.

(g) Upon issuance of a citation for violation of the applicable standard, the operator shall take the following actions sequentially:

(1) Make approved respiratory equipment available to affected miners in accordance with §72.700 of this chapter;

(2) Immediately take corrective action to lower the concentration of respirable coal mine dust to at or below the applicable standard; and

(3) Make a record of the corrective actions taken. The record shall be certified by the mine foreman or equivalent mine official, no later than the end of the mine foreman's or equivalent official's next regularly scheduled working shift. The record shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration. Such records shall be retained at a surface location at the mine for at least 1 year and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

(4) Begin sampling, within 8 calendar days after the date the citation is issued, the environment of the affected DA on consecutive normal production shifts until five valid representative samples are taken.

(h) A citation for a violation of the applicable standard shall be terminated by MSHA when:

(1) Each of the five valid representative samples is at or below the applicable standard; and

(2) The operator has submitted to the District Manager revised dust control parameters as part of the mine ventilation plan applicable to the DA in the citation, and the changes have been approved by the District Manager. The revised parameters shall reflect the control measures used by the operator to abate the violation.

§ 70.208 Quarterly sampling; mechanized mining units.

On February 1, 2016:

(a) The operator shall sample each calendar quarter:

(1) The designated occupation (DO) in each MMU on consecutive normal production shifts until 15 valid representative samples are taken. The District Manager may require additional groups of 15 valid representative samples when information indicates the operator has not followed the approved ventilation plan for any MMU.

(2) Each other designated occupation (ODO) specified in paragraphs (b)(1) through (b)(10) of this section in each MMU or specified by the District Manager and identified in the approved mine ventilation plan on consecutive normal production shifts until 15 valid representative samples are taken. Sampling of each ODO type shall begin after fulfilling the sampling requirements of paragraph (a)(1) of this section. When required to sample more than one ODO type, each ODO type must be sampled over separate time periods during the calendar quarter.

(3) The quarterly periods are:

January 1–March 31
April 1–June 30
July 1–September 30
October 1–December 31.

(b) Unless otherwise directed by the District Manager, the approved sampling device shall be worn by the miner assigned to perform the duties of the DO or ODO specified in paragraphs (b)(1) through (b)(10) of this section or by the District Manager for each type of MMU.

(1) *Conventional section using cutting machine.* DO—The cutting machine operator;

(2) *Conventional section blasting off the solid.* DO—The loading machine operator;

(3) *Continuous mining section other than auger-type.* DO—The continuous mining (CM) machine operator or mobile bridge operator when using continuous haulage; ODO—The roof bolting machine operator who works nearest the working face on the return air side of the continuous mining machine; the face haulage operators on MMUs using blowing face ventilation; the face haulage operators on MMUs ventilated by split intake air (''fishtail ventilation'') as part of a supersection; and face haulage operators where two continuous mining machines are operated on an MMU.

(4) *Continuous mining section using auger-type machine.* DO—The jacksetter who works nearest the working face on the return air side of the continuous mining machine;

(5) *Scoop section using cutting machine.* DO—The cutting machine operator;

(6) *Scoop section, blasting off the solid.* DO—The coal drill operator;

(7) *Longwall section.* DO—The longwall operator working on the tailgate side of the longwall mining machine; ODO—The jacksetter who works nearest the return air side of the longwall working face, and the mechanic;

(8) *Hand loading section with a cutting machine.* DO—The cutting machine operator;

(9) *Hand loading section blasting off the solid.* DO—The hand loader exposed to the greatest dust concentration; and

(10) *Anthracite mine sections.* DO—The hand loader exposed to the greatest dust concentration.

(c) When the respirable dust standard is changed in accordance with § 70.101, the new applicable standard shall become effective 7 calendar days after the date of notification of the change by MSHA.

(d) If a normal production shift is not achieved, the DO or ODO sample for that shift may be voided by MSHA. However, any sample, regardless of production, that exceeds the applicable standard by at least 0.1 mg/m^3 shall be used in the determination of the equivalent concentration for that occupation.

(e) When a valid representative sample taken in accordance with this section meets or exceeds the ECV in Table 70–1 that corresponds to the applicable standard and particular sampling device used, the operator shall:

(1) Make approved respiratory equipment available to affected miners in accordance with § 72.700 of this chapter;

(2) Immediately take corrective action to lower the concentration of respirable dust to at or below the applicable respirable dust standard; and

(3) Make a record of the corrective actions taken. The record shall be certified by the mine foreman or equivalent mine official, no later than the end of the mine foreman's or equivalent official's next regularly scheduled working shift. The record shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration. Such records shall be retained at a surface location at the mine for at least 1 year and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

(f) Noncompliance with the applicable standard is demonstrated during the sampling period when:

(1) Three or more valid representative samples meet or exceed the ECV in Table 70–1 that corresponds to the applicable standard and the particular sampling device used; or

(2) The average for all valid representative samples meets or exceeds the ECV in Table 70–2 that corresponds to the applicable standard and the particular sampling device used.

(g)(1) Unless otherwise directed by the District Manager, upon issuance of a citation for a violation of the applicable standard involving a DO in an MMU, paragraph (a)(1) shall not apply to the DO in that MMU until the violation is abated and the citation is terminated in accordance with paragraphs (h) and (i) of this section.

(2) Unless otherwise directed by the District Manager, upon issuance of a citation for a violation of the applicable standard involving a type of ODO in an MMU, paragraph (a)(2) shall not apply to that ODO type in that MMU until the violation is abated and the citation is terminated in accordance with paragraphs (h) and (i) of this section.

(h) Upon issuance of a citation for violation of the applicable standard, the operator shall take the following actions sequentially:

(1) Make approved respiratory equipment available to affected miners in accordance with §72.700 of this chapter;

(2) Immediately take corrective action to lower the concentration of respirable coal mine dust to at or below the applicable standard; and

(3) Make a record of the corrective actions taken. The record shall be certified by the mine foreman or equivalent mine official, no later than the end of the mine foreman's or equivalent official's next regularly scheduled working shift. The record shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration. Such records shall be retained at a surface location at the mine for at least 1 year and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

(4) Begin sampling, within 8 calendar days after the date the citation is issued, the environment of the affected occupation in the MMU on consecutive normal production shifts until five valid representative samples are taken.

(i) A citation for violation of the applicable standard shall be terminated by MSHA when:

(1) Each of the five valid representative samples is at or below the applicable standard; and

(2) The operator has submitted to the District Manager revised dust control parameters as part of the mine ventilation plan applicable to the MMU in the citation and the changes have been approved by the District Manager. The revised parameters shall reflect the control measures used by the operator to abate the violation.

§ 70.209 Quarterly sampling; designated areas.

On February 1, 2016:

(a) The operator shall sample quarterly each designated area (DA) on consecutive production shifts until five valid representative samples are taken. The quarterly periods are:

January 1–March 31
April 1–June 30
July 1–September 30
October 1–December 31.

(b) When the respirable dust standard is changed in accordance with §70.101, the new applicable standard shall become effective 7 calendar days after the date of the notification of the change by MSHA.

(c) When a valid representative sample taken in accordance with this section meets or exceeds the ECV in Table 70–1 that corresponds to the applicable standard and particular sampling device used, the operator shall:

(1) Make approved respiratory equipment available to affected miners in accordance with §72.700 of this chapter;

(2) Immediately take corrective action to lower the concentration of respirable dust to at or below the applicable respirable dust standard; and

(3) Make a record of the corrective actions taken. The record shall be certified by the mine foreman or equivalent mine official, no later than the end of the mine foreman's or equivalent official's next regularly scheduled working shift. The record shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration. Such records shall be retained at a surface location at the mine for at least 1

year and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

(d) Noncompliance with the applicable standard is demonstrated during the sampling period when:

(1) Two or more valid representative samples meet or exceed the ECV in Table 70–1 that corresponds to the applicable standard and the particular sampling device used; or

(2) The average for all valid representative samples meets or exceeds the ECV in Table 70–2 that corresponds to the applicable standard and particular sampling device used.

(e) Unless otherwise directed by the District Manager, upon issuance of a citation for a violation of the applicable standard, paragraph (a) of this section shall not apply to that DA until the violation is abated and the citation is terminated in accordance with paragraphs (f) and (g) of this section.

(f) Upon issuance of a citation for a violation of the applicable standard, the operator shall take the following actions sequentially:

(1) Make approved respiratory equipment available to affected miners in accordance with §72.700 of this chapter;

(2) Immediately take corrective action to lower the concentration of respirable coal mine dust to at or below the applicable standard; and

(3) Make a record of the corrective actions taken. The record shall be certified by the mine foreman or equivalent mine official, no later than the end of the mine foreman's or equivalent official's next regularly scheduled working shift. The record shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration. Such records shall be retained at a surface location at the mine for at least 1 year and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

(4) Begin sampling, within 8 calendar days after the date the citation is issued, the environment of the affected DA on consecutive normal production shifts until five valid representative samples are taken.

(g) A citation for a violation of the applicable standard shall be terminated by MSHA when:

(1) Each of the five valid representative samples is at or below the applicable standard; and

(2) The operator has submitted to the District Manager revised dust control parameters as part of the mine ventilation plan applicable to the DA in the citation, and the changes have been approved by the District Manager. The revised parameters shall reflect the control measures used by the operator to abate the violation.

§70.210 Respirable dust samples; transmission by operator.

(a) If using a CMDPSU, the operator shall transmit within 24 hours after the end of the sampling shift all samples collected to fulfill the requirements of this part, including control filters, in containers provided by the manufacturer of the filter cassette to: Respirable Dust Processing Laboratory, Pittsburgh Safety and Health Technology Center, Cochrans Mill Road, Building 38, P.O. Box 18179, Pittsburgh, Pennsylvania 15236–0179, or to any other address designated by the District Manager.

(b) The operator shall not open or tamper with the seal of any filter cassette or alter the weight of any filter cassette before or after it is used to fulfill the requirements of this part.

(c) A person certified in sampling shall properly complete the dust data card that is provided by the manufacturer for each filter cassette. The card shall have an identification number identical to that on the cassette used to take the sample and be submitted to MSHA with the sample. Each card shall be signed by the certified person who actually performed the required examinations under 70.205(b) of this part during the sampling shift and shall include that person's MSHA Individual Identification Number (MIIN). Respirable dust samples with data cards not properly completed may be voided by MSHA.

(d) All respirable dust samples collected by the operator shall be considered taken to fulfill the sampling requirements of part 70, 71, or 90 of this title, unless the sample has been identified in writing by the operator to the District Manager, prior to the intended sampling shift, as a sample to be used for purposes other than required by part 70, 71, or 90 of this title.

(e) Respirable dust samples received by MSHA in excess of those required by this part shall be considered invalid samples.

(f) If using a CPDM, the person certified in sampling shall (1) validate, certify, and transmit electronically to MSHA within 24 hours after the end of each sampling shift all sample data file information collected and stored in the CPDM, including the sampling status conditions encountered when sampling; and (2) not tamper with the CPDM or its components in any way before, during, or after it is used to fulfill the requirements of this part, or alter any sample data files. All CPDM data files transmitted electronically to MSHA shall be maintained by the operator for at least 12 months.

§70.211 Respirable dust samples; report to operator; posting.

(a) MSHA shall provide the operator, as soon as practicable, a report with the following data on respirable dust samples submitted or whose results were transmitted

electronically, if using a CPDM, in accordance with this part:

(1) The mine identification number;

(2) The locations within the mine from which the samples were taken;

(3) The concentration of respirable dust, expressed as an equivalent concentration for each valid sample;

(4) The average equivalent concentration of respirable dust for all valid samples;

(5) The occupation code, where applicable; and

(6) The reason for voiding any sample.

(b) Upon receipt, the operator shall post this data for at least 31 days on the mine bulletin board.

(c) If using a CPDM, the person certified in sampling shall, within 12 hours after the end of each sampling shift, print, sign, and post on the mine bulletin board a paper record (Dust Data Card) of the sample run. This hard-copy record shall include the data entered when the sample run was first programmed, and the following:

(1) The mine identification number;

(2) The locations within the mine from which the samples were taken;

(3) The concentration of respirable dust, expressed as an equivalent concentration reported and stored for each sample;

(4) The sampling status conditions encountered for each sample; and

(5) The shift length.

(d) The information required by paragraph (c) of this section shall remain posted until receipt of the MSHA report covering these respirable dust samples.

§ 70.212 Status change reports.

(a) If there is a change in operational status that affects the respirable dust sampling requirements of this part, the operator shall report the change in operational status of the mine, mechanized mining unit, or designated area to the MSHA District Office or to any other MSHA office designated by the District Manager. Status changes shall be reported in writing or electronically within 3 working days after the status change has occurred.

(b) Each specific operational status is defined as follows:

(1) Underground mine:

(i) *Producing*—has at least one MMU unit producing material.

(ii) *Nonproducing*—no material is being produced.

(iii) *Abandoned*—the work of all miners has been terminated and production activity has ceased.

(2) MMU:

(i) *Producing*—producing material from a working section.

(ii) *Nonproducing*—temporarily ceased production of material.

(iii) *Abandoned*—permanently ceased production of material.

(3) DA:

(i) *Producing*—activity is occurring.

(ii) *Nonproducing*—activity has ceased.

(iii) *Abandoned*—the dust generating source has been withdrawn and activity has ceased.

Tables to Subpart C

Table 70–1—Excessive Concentration Values (ECV) Based on Single, Full-Shift CMDPSU/CPDM Concentration Measurements

Applicable standard (mg/m^3)	ECV (mg/m^3)	
	CMDPSU	CPDM
2.0	2.33	2.26
1.9	2.22	2.15
1.8	2.12	2.04
1.7	2.01	1.92
1.6	1.90	1.81
1.5	1.79	1.70
1.4	1.69	1.58
1.3	1.59	1.47
1.2	1.47	1.36
1.1	1.37	1.25
1.0	1.26	1.13
0.9	1.16	1.02
0.8	1.05	0.91
0.7	0.95	0.79
0.6	0.85	0.68
0.5	0.74	0.57
0.4	0.65	0.46
0.3	0.54	0.34
0.2	0.44	0.23

Table 70–2—Excessive Concentration Values (ECV) Based on the Average of 5 or 15 Full-Shift CMDPSU/CPDM Concentration Measurements

Applicable standard (mg/m^3)	ECV (mg/m^3) based on 5-sample average		ECV (mg/m^3) based on 15-sample average	
	CMDPSU	CPDM	CMDPSU	CPDM
2.0	2.15	2.12	2.09	2.07
1.9	2.05	2.01	1.99	1.97
1.8	1.94	1.91	1.89	1.87
1.7	1.84	1.80	1.78	1.76
1.6	1.74	1.70	1.68	1.66
1.5	1.63	1.59	1.58	1.56
1.4	1.53	1.49	1.48	1.45
1.3	1.43	1.38	1.38	1.35
1.2	1.33	1.27	1.28	1.25

TABLE 70–2—EXCESSIVE CONCENTRATION VALUES (ECV) BASED ON THE AVERAGE OF 5 OR 15 FULL-SHIFT CMDPSU/CPDM CONCENTRATION MEASUREMENTS—Continued

Applicable standard (mg/m^3)	ECV (mg/m^3) based on 5-sample average		ECV (mg/m^3) based on 15-sample average	
	CMDPSU	CPDM	CMDPSU	CPDM
1.1	1.22	1.17	1.17	1.14
1.0	1.12	1.06	1.07	1.04
0.9	1.02	0.96	0.97	0.94
0.8	0.92	0.85	0.87	0.83
0.7	0.81	0.75	0.77	0.73
0.6	0.71	0.64	0.67	0.63
0.5	0.61	0.53	0.57	0.52
0.4	0.51	0.43	0.47	0.42
0.3	0.41	0.32	0.37	0.32
0.2	0.31	0.22	0.27	0.21

Subpart D—Respiratory Equipment

AUTHORITY: Title II, secs. 303(b), and 508, Federal Coal Mine Health and Safety Act of 1969 (83 Stat. 742; 30 U.S.C. 801); secs. 301(a) and 302(a), Federal Mine Safety and Health Amendments Act of 1977, Pub. L. 95–164, 30 U.S.C. 961 and 951 and 29 U.S.C. 577a, 91 Stat. 1317 and 91 Stat. 1319; sec. 508, Federal Mine Safety and Health Act of 1977, Pub. L. 91–173 as amended by Pub. L. 95–164, 30 U.S.C. 957, 83 Stat. 803.

SOURCE: 35 FR 5544, Apr. 3, 1970, unless otherwise noted.

EFFECTIVE DATE NOTE: At 79 FR 24980, May 1, 2014, subpart D was removed and reserved, effective Aug. 1, 2014.

§ 70.300 Respiratory equipment; respirable dust.

Respiratory equipment approved by NIOSH under 42 CFR part 84 shall be made available to all persons whenever exposed to concentrations of respirable dust in excess of the levels required to be maintained under this part. Use of respirators shall not be substituted for environmental control measures in the active workings. Each operator shall maintain a supply of respiratory equipment adequate to deal with occurrences of concentrations of respirable dust in the mine atmosphere in excess of the levels required to be maintained under this part.

[60 FR 30401, June 8, 1995]

§ 70.305 Respiratory equipment; gas, dusts, fumes, or mists.

Respiratory equipment approved by NIOSH under 42 CFR part 84 shall be provided to persons exposed for short periods to inhalation hazards from gas, dusts, fumes, or mist. When the exposure is for prolonged periods, other measures to protect such persons or to reduce the hazard shall be taken.

[60 FR 30401, June 8, 1995]

Subpart E—Dust From Drilling Rock [Reserved]

Subparts F–S [Reserved]

Subpart T—Diesel Exhaust Gas Monitoring

§ 70.1900 Exhaust Gas Monitoring.

(a) During on-shift examinations required by § 75.362, a certified person as defined by § 75.100 of this chapter and designated by the operator as trained or experienced in the appropriate sampling procedures, shall determine the concentration of carbon monoxide (CO) and nitrogen dioxide (NO_2):

(1) In the return of each working section where diesel equipment is used, at a location which represents the contribution of all diesel equipment on such section;

(2) In the area of the section loading point if diesel haulage equipment is operated on the working section;

(3) At a point inby the last piece of diesel equipment on the longwall or shortwall face when mining equipment is being installed or removed; and

(4) In any other area designated by the district manager as specified in the mine operator's approved ventilation plan where diesel equipment is operated in a manner which can result in

significant concentrations of diesel exhaust.

(b) Samples of CO and NO_2 shall be—

(1) Collected in a manner that makes the results available immediately to the person collecting the samples;

(2) Collected and analyzed by appropriate instrumentation which has been maintained and calibrated in accordance with the manufacturer's recommendations; and

(3) Collected during periods that are representative of conditions during normal operations.

(c) Except as provided in §75.325(j) of this chapter, when sampling results indicate a concentration of CO and/or NO_2 exceeding an action level of 50 percent of the threshold limit values (TLV®) adopted by the American Conference of Governmental Industrial Hygienists, the mine operator shall immediately take appropriate corrective action to reduce the concentrations of CO and/or NO_2 to below the applicable action level. The publication, ''Threshold Limit Values for Substance in Workroom Air'' (1972) is incorporated by reference and may be inspected at MSHA's Office of Standards, Regulations, and Variances, 1100 Wilson Blvd., Room 2352, Arlington, Virginia 22209–3939; at any MSHA Coal Mine Safety and Health district office; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. In addition, copies of the document may be purchased from American Conference of Governmental Industrial Hygienists, 330 Kemper Meadow Drive, Attn: Customer Service, Cincinnati, OH 45240; *http://www.acgih.org*.

(d) A record shall be made when sampling results exceed the action level for the applicable TLV® for CO and/or NO_2. The record shall be made as part of and in the same manner as the records for hazards required by §75.363 of this chapter and include the following:

(1) Location where each sample was collected;

(2) Substance sampled and the measured concentration; and

(3) Corrective action taken to reduce the concentration of CO and/or NO_2 to or below the applicable action level.

(e) As of November 25, 1997 exhaust gas monitoring shall be conducted in accordance with the requirements of this section.

[61 FR 55526, Oct. 25, 1996, as amended at 67 FR 38385, June 4, 2002; 71 FR 16667, Apr. 3, 2006]

PART 71—MANDATORY HEALTH STANDARDS—SURFACE COAL MINES AND SURFACE WORK AREAS OF UNDERGROUND COAL MINES

Subpart A—General

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71.1 Scope.
71.2 Definitions.

Subpart B—Dust Standards

71.100 Respirable dust standard.
71.101 Respirable dust standard when quartz is present.

Subpart C—Sampling Procedures

71.201 Sampling; general requirements.
71.202 Certified person; sampling.
71.203 Certified person; maintenance and calibration.
71.204 Approved sampling devices; maintenance and calibration.
71.205 Approved sampling devices; operation; air flowrate.
71.206 Approved sampling devices; equivalent concentrations.
71.207 [Reserved]
71.208 Bimonthly sampling; designated work positions.
71.209 Respirable dust samples; transmission by operator.
71.210 Respirable dust samples; report to operator; posting.
71.220 Status change reports.

Subpart D—Respirable Dust Control Plans

71.300 Respirable dust control plan; filing requirements.